BRUHAT BENGALURU MAHANAGARA PALIKE
EXECUTIVE ENGINEER (ELECRICALS) DASARAHALLI ZONE
Schedule -B

Indent Number:BBMP/2021-22/EL/WORK_INDENT49662

Name Of Work: Providing LED Street lights/Poles/Control switches/control wires at Dark/volernabal places in Ward no 12

SNo	Item Name	Unit	Estimate Quantity	Rates Quoted by Contractor NAGARAJU LINGAIAH (VEDHA ELECTRICALS)	
				In Figures (Rs.)	In Words (Rs.)
1	Supply of LED Streetlight luminaire with pressure die cast aluminium housing body for optimal thermal dissipation Lamp compartment comprising of anti glare clear diffuser with injection moulded polycarbonate material, delivering superior light output. Rated life Burning Hrs 50000 hr @ Lumen Maintenance of 70%, maximum light intensity should be between 60 degrees to 70 degrees. CCT > 5500K, IP 66 optical and electrical compartment & impact resistance of complete luminaire > IK08. Power Factor >0.9 with mains, Surge Protection- Min 5KV along with Over voltage/ Overload, short circuit/ miss-wiring protection. Compatible for pole mouting with outer dia of 40mm to 50mm. Universal Voltage driver to operate wide voltage range from 100V to 270V 50/60Hz application. Compliance to IS 10322/IEC 60598, LM 79 & LM 80 Adherence with RoHS. UL approved MCPCB. Top access street light with single screw to ensure ease of maintenance at the sight site location with minimized minimal tools LED Light fixture with W System Powerconsumption LED Efficiency>130lm/w, nominal CRI >75. Luminaire manufacturer should have in-house facility accredited by NABL/CPRI & any Government certified agency & Design & Development facility certified by ISO 9001:2008. Housing with supplier word mark /name shall be Engraved / Embossing on the die cast housing/ Body part. Warranty of 2 Years against any manufacturing defect working under standard electrical conditions as mentioned above should be given by LED manufacturer & Cree/Nichia/ Lumileds/Osram make LED Source LED Streetlight 90 Watts	Nos	1900	7625.4	Rupees Seven thousand Six Hundre d Twenty Five and Four paisa Only
2	Fabricating, supplying and erecting swaged tubular pole of height ...Mtr having three sections, and providing two coats of red oxide paint and finished with two coats of enamelled paint of approved quality and colour and M S base plate of suitable size welded at the bottom of the pole(as per IS) and 40mm dia GI / flexible PVC pipe of 1 mtr length fitted to the heavy gauge polycarbonate control box including 5way connector of size 167x125x82mm for 7.5M pole/200x160x98mm for remaining length of pole with front opening cover, with locking arrangements and suitable capacity MCB / DP switch, The pole shall be erected in cement concrete work (1:2.4) including excavation and refilling of planting depth of the pole to the ground level and the coping CC shall be up to 0.6M above ground level as per IS 2713 - 7.Erection of heavy duty pole on Footpath / median 9Mt (5Mt Hb,165.1mm dia 4.85mm thick x2M Hm, 139.7mm dia 4.50mm thick x 2M Ht,114.3mm dia 3.65mm thick) as per IS 410 SP 32	Each	170	14058	Rupees Forteen Thousand Fifty eight Only
3	Supplying, and fixing of Hot dip Galvanized M.S.Bracket suitable for out door luminaries and mounted on Octagonal pole using necessary bolts, nuts etc., complete.Single Arm Bracket with 1500mm Standard 40/50MM dia	Each	170	2249.28	Rupees Two Thousand Twu Hundred Forty Nine and Twenty Eight Paisa Only.
4	Fixing halogen/metal halide / SVL / IL / LED floodlight fitting over existing pole / wall ceiling including clamps, bolts, nuts and wiring using suitable capacity wires.	Each	1900	186.375	Rupees One Hundred Eighty Six and Three seventy Five Paisa Only.
5	Supplying and Fixing of mm dia class A GI pipe bracket up to 2 Mtrs long bent at suitable angle and fixing to this bracket 1x40/2x40 watts fluorescent tube street light fitting of all capacities to GI or CI or rail or RCC pole / wall using suitable clamps, bolts, and nuts and wiring using suitable capacity wires Using 32mm dia G I Pipe	Each	1750	889.275	Rupees Eight Hundred Eighty Nine and Two seventy Five Paisa Only.

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6	Supplying of 1 1 KV LT UG cable XLPE or Heat resistant PVC insulated, PVC extruded inner sheath armoured UG LT cable as per IS-1554 (Part-1) or IS-7098 Part-1, Armouring strip thickness in average +5% and resistivity 14 Ohms/Kms (Max) as per IS-3975 4 core 16 sqmm	Mtrs	6400	159.75	Rupees One Hundred Fifty Nine and Seventy Five Paisa Only.
7	Wiring for lighting/power circuit using one of PVC insulated 1100V grade, stranded Aluminium wire single core in open or concealed system of wiring 4 sqmm	Mtrs	4900	9.585	Rupees Nine and Five Eighty Five Paisa Only.
8	Supplying of 1 1 KV LT UG cable XLPE or Heat resistant PVC insulated, PVC extruded inner sheath armoured UG LT cable as per IS-1554 (Part-1) or IS-7098 Part-1, Armouring strip thickness in average +5% and resistivity 14 Ohms/Kms (Max) as per IS-3975 3 5 core 25 sqmm	Mtrs	678	191.7	Rupees One Hundred Ninty One and seven Paisa Only.
9	Labour charges for laying of 1 1 KV class UG cable in existing trench GI pipe / stoneware pipe / on wall / on pole as required 6 sqmm to 16 sqmm	Mtrs	6400	12.6522	Rupees Twelve and Sixty Five Paisa Only
10	Labour charges for laying of 1 1 KV class UG cable in existing trench GI pipe / stoneware pipe / on wall / on pole as required 25sqmm to 75 sqmm	Mtrs	1000	16.5075	Rupees Sixteen and Fifty Paisa only
11	Digging of trench of 0 6m deep x 0 50 mtr wide refilling the trench to the required ground level and consolidating etc , complete (As per Civil SR KSRB 1-2, P-7) In soil (ordinary)	Mtrs	5800	80.94	Rupees Eighty and Ninty Four Paisa only.
12	Supplying, fixing, wiring, earth electrode for grounding conduits, I C cutouts and other equipment's on the meter board using 40mm dia 2 90mm thick GI pipe 2 5 mtr long buried in a pit . The pit should be filled with equal proportion of salt and charcoal 150mm all-round the pipe to complete depth The connection from the pipe to the conduit etc , is to be established through GI wire of size as per ISI specification 7 3 3 of IS 732 using 12mm dia bolts, nuts, washers and check nuts etc , the pipe shall have 16 through holes of 12 mm dia	Nos	8	3194.6805	Rupees Three Thousand One hundred Ninty Four and Sixty eight Paisa Only.
13	Supplying and running of GI/Copper strips for grounding connections, using necessary fixing materials as required 25x3mm GI strip	Mtrs	40	79.875	Rupees Seventy Nine and eight seven Five Paisa Only.
14	Fabricating supplying and mounting MS box made out .. SWG suitable for floor / wall mounting, fully weather proof with provision for better heat dissipation, provided with hinged front cover, equipped with tamper proof locking arrangements, with suitable size clamps with necessary cable entry pipe with gland and box should be finished with 7tanks treatment with powder coated paint and finally finished with approved colour etc., complete.16SWG	Sqcm	75000	0.37275	Three seven Paisa Only
15	Supplying and fixing angle iron frame work fabricated out of M S. angle iron.. and M.S. flat ... with bolts, washers etc., and painted with 2 coats of red oxide and then two coats of approved paint.40x40x6mm	Mtrs	25	271.575	Rupees Two Hundred Seventy One and Five seven Five Paisa Only.
16	Supplying and fixing Moulded Case Circuit Breaker (MCCB) over the existing wood/panel board using necessary screws, bolts, nuts, necessary phase separators, handle and wiring complete. Protection of Overload and Short circuit with thermal Magnetic/Micro processor release and Earth Fault as per IS-13947 (Icu = Ics)FOUR POLE 100Amps 25kA	Each	2	6816	Rupees Six Thousand Eight Hundred Sixteen Only.
17	Supplying and fixing Microprocessor Based Astronomical timer Switch with using necessary bolts, nuts and washers	Each	2	4291.95	Rupees Four Thousand Two Hundred ninty one and Ninty Five Paisa only.
18	Supply and fixing of 4pole power contactor with NO/NC contacts on existing wood/panel board using necessary bolts, nuts, washers and wiring etc., complete with AC-3 Rating and as per IS-13947 100 to 125Amps	Each	2	7668	Rupees Seven Thousand Six Hundred Sixty eight Only.
19	Supplying and fixing miniature circuit breakers on existing MCB distribution boards using necessary fixing materials and 'C' Type curve, indicator ON/OFF, energy cross-3 with Short circuit breaking capacity of 10K and complete wiring as required confirming to IEC 60898 50-63Amps TPN	Each	8	2552.805	Rupees two Thousand Five Hundred Fifty Two and Eight zero five Only..
20	Supplying 4mm thick plastic sheet with necessary nitches for fixing switches, regulators etc., and fixing on existing wooden or metal box using N F screws	Sqcm	10000	0.28755	Two Eight seven Paisa Only.
21	Supplying and drawing Flexible Multicore Cable manufactured with electrolytic grade flexible copper with low conductor confirming to IS 8130-1984 and (Virgin) PVC insulation sheathed suitable for working voltage upto 1100Volts as per IS-694 1990 3C X 1 5Sq mm	Mtrs	2800	58.575	Rupees Fifty Eight and Five Seven Five paisa Only.

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Wiring for lighting/power circuit using one of FRLS PVC insulated 1100V grade, multistrand copper wire with low conductor resistance single core in open or concealed system of wiring with specified IS:694 confirming to latest amendments.6 Smm	Mtrs	62	74.55	Rupees Seventy Four and Fifty Five Paisa Only.
Applying tinned copper lugs and crimping and wiring to terminal point for wire of the following sizes a)1.5 sqmm	Each	340	3.195	Rupees Three and One Nine Five Paisa Only
b) Supplying tinned copper lugs and crimping and wiring to terminal point for wire of the following sizes6 Sqmm	Each	120	7.455	Rupees Seven and Four five five Paisa Only
c) Supplying tinned copper lugs and crimping and wiring to terminal point for wire of the following sizes16 Sqmm	Each	1360	13.2486	Rupees Thirteen and Two Four Paisa Only
Applying and fixing of class A (medium duty) GI pipe of wall thickness not less than 3.25mm on pole/wall/drain crossing with necessary clamping arrangements for UG cable of 1.1 KV 40mm	Mtrs	10	356.775	Rupees Three Hundred Fifty Six and Seven seven Paisa Only
Applying and fixing L.T. cast iron pot heads suitable for 1.1 KV class UG cable filled with necessary bitumen/insulating compound complete with terminals, clamps, bolts, nuts and washers ts 25Sqmm	Each	8	372.75	Rupees Three Hundred Seventy Two and Seventy Five Paisa Only
1 KV, LT Aerial Bunched Cable, confirming to IS-14255: 1995 XLPE insulation Parameter shall be as below 1. Hot Set Test a) Elongation under Load: 50% (Max) b) Permanent Elongation After Cooloing: 3% (Max) 2. Thermal Aging in oven: a) Tensile Strength: 16 N/mm^2 (Min) b) Elongation: 375% (Min) 3. Water Absorption Test a) Water absorbed: 0.5 mg/cm^2 (Max) 4. Carbon Black Content shall be ranging from 2% to 3% 3x25 + 1x25 + 1x16 Sqmm Street light (Insulated Messenger cum Neutral)	Km	1.05	156555	Rupees One Lakh Fifty Six Thousand Five Hundred Fifty Five Only.
Stringing of 1.1 kV grade Aerial Bunched 3 Core cable of XLPE insulation of size (3x95) (Phase Conductor) + (1x70) (Insulated Messenger Neutral) + (1x25) (Street Light Control)	Km	1.05	23929.485	Rupees Twenty Three Thousand Nine Hundred Twenty Nine and Forty Nine Paisa Only.
RCC Pole - 9 Mtr Long, 145 Kg WL	Nos	10	6664.77	Rupees Six Thousand Six Hundred sixty Four and Seventy Seven Paisa Only.
LT 2 Pin Cross Arm with clamps, bolts, nuts & washers with braces - MS for RCC pole	set	80	291.81	Rupees Two Hundred ninty One and Eighty One Paisa Only.
c) No. 8 Strain Insulator	Nos	30	17.04	Rupees Seventeen and Four Paisa only.
Laying of UG Cables by trenchless technology by adopting horizontal boring & Drawing of cable including preparation at site With HDPE Pipe i) Normal soil 5/6" bore size	Mtrs	30	903.12	Rupees Nine hundred three and Twelve Paisa Only.

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